# Study Guide- Fourth Year MBBS REPRODUCTIVE MODULE 2





LIAQUAT NATIONAL HOSPITAL AND MEDICAL COLLEGE Institute for Postgraduate Medical Studies & Health Science



# **STUDY GUIDE FOR REPRODUCTIVE 2 MODULE**

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Module name: Reproductive System-II Year: Four Duration: 7 weeks (10th March-26th April 2025)

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#### DEPARTMENT RESOURCE PERSONS

#### **INTRODUCTION**

#### WHAT IS A STUDY GUIDE?

It is an aid to:

- Inform students how the student learning program of the module has been organized
- Help students organize and manage their studies throughout the module
- Guide students on assessment methods, rules, and regulations

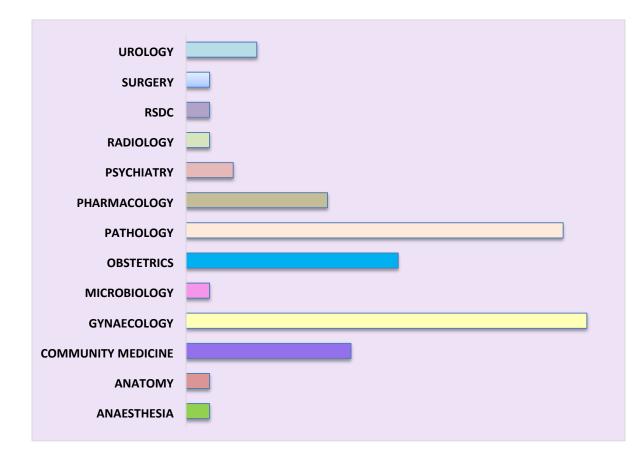
#### THE STUDY GUIDE:

- Communicates information on the organization and management of the module. This will help the student to contact the right person in case of any difficulty.
- Defines the objectives which are expected to be achieved at the end of the module.
- Identifies the learning strategies such as lectures, small group teachings, clinical skills, demonstrations, tutorials, and case-based learning that will be implemented to achieve the module objectives.
- Provides a list of learning resources such as books; computer-assisted learning programs, weblinks, and journals, for students to consult to maximize their learning.
- Highlights information on the contribution of continuous on the student's overall performance.
- Includes information on the assessment methods that will be held to determine every student's Achievement of objectives.
- Focuses on information about examination policy, rules, and regulations.

**INTEGRATED CURRICULUM** comprises system-based modules such as Eye/ENT, Orthopedics, Dermatology, Genetics, and Reproductive System-II which links basic science knowledge to clinical problems. Integrated teaching means that subjects are presented as a meaningful whole. Students will be able to have a better understanding of basic sciences when they repeatedly learn clinical examples.

**LEARNING EXPERIENCES**: Case-based integrated discussions, Task-oriented learning followed by task presentation, skills acquisition in skills lab, computer-based assignments, and learning experiences in clinics, and wards.

# **INTEGRATING DISCIPLINES OF REPRODUCTIVE SYSTEM II MODULE**



#### LEARNING METHODOLOGIES

The following teaching/learning methods are used to promote better understanding:

- Interactive Lectures
- Tutorial
- Case- Based Learning (CBL)
- Clinical Experiences
- Clinical Rotations
- Skills session
- Self-Directed Learning

**INTERACTIVE LECTURES:** In a large group, the lecturer introduces a topic or common clinical conditions and explains the underlying phenomena through questions, pictures, videos of patients' interviews, exercises, etc. Students are actively involved in the learning process.

**TUTORIAL:** This format helps students to clarify concepts, and acquire skills or desired attitudes. Sessions are structured with the help of specific exercises such as patient cases, interviews, or discussion topics. Students exchange opinions and apply knowledge gained from lectures, tutorials, and self-study. The facilitator's role is to ask probing questions, summarize, or rephrase to help clarify concepts.

**CASE-BASED LEARNING (CBL)**: A small group discussion format where learning is focused on a series of questions based on a clinical scenario. Students discuss and answer the questions by applying relevant knowledge gained previously in clinical and basic health sciences during the module and constructing new knowledge. The CBD will be provided by the concerned department.

**CLINICAL LEARNING EXPERIENCES:** In small groups, students observe patients with signs and symptoms in hospital wards, clinics, and outreach centers. This helps students to relate knowledge of basic and clinical sciences of the module and prepare for future practice.

 CLINICAL ROTATIONS: In small groups, students rotate in different wards like Medicine, Pediatrics, Surgery, Obstetrics & Gynaecology, ENT, Eye, Family Medicine clinics, outreach centers & Community Medicine experiences. Here students observe patients, take histories and perform supervised clinical examinations in outpatient and inpatient settings. They also get an opportunity to observe medical personnel working as a team. These rotations help students relate basic medical and clinical knowledge in diverse clinical areas.

**SKILLS SESSION:** Skills relevant to the respective module are observed and practiced where applicable in simulated-learning environments such as skills laboratory.

**SELF-DIRECTED LEARNING:** Students assume responsibilities for their learning through individual study, sharing and discussing with peers, and seeking information from Learning Resource Center, teachers, and resource persons within and outside the college. Students can utilize the time within the college's scheduled hours of self study.

#### **MODULE: REPRODUCTIVE-2**

#### **INTRODUCTION**

Reproductive health (RH) is a state of complete physical, mental, and social well-being in all matters relating to the reproductive system. Reproductive Health is essential for peoples' overall well-being. Hence Reproductive health and specifically women's reproductive health is given prime importance at a global level.

Despite improvement in the reproductive health status of the population in Pakistan, it is much below the desired Sustainable Development Goal target level. The maternal mortality ratio (MMR) for Pakistan is 178 per 100,000 live births majority resulting from preventable causes related to pregnancy and childbirth. Maternal health and newborn health are closely linked. The reported perinatal mortality rate in Pakistan is 64 per 1,000 births.

This module will address common Maternal and child health issues including safe motherhood, contraception, abortion, Infant health care, Sexually Transmitted Diseases and HIV/AIDS, and infertility. It will also address the RH-related issues of men.

- 1. Bhutta ZA, Hafeez A, Rizvi A, Ali N, Khan A, Ahmad F, Bhutta S, Hazir T, Zaidi A, Jafarey SN. Reproductive, maternal, newborn, and child health in Pakistan: challenges and opportunities. The Lancet. 2013 Jun 28;381(9884):2207-18.
- WHO, UNICEF, UNFPA, World Bank Group, and the United Nations Population Division. Trends in Maternal Mortality: 2015 to 2017. Geneva, World Health Organization, 2017
- United Nations Population Division's World Population Prospects, 2016. Available from: <u>https://data.worldbank.org/indicator/SP.DYN.IMRT.IN</u>
- 4. Sheet WF. Maternal Mortality. World Health Organization webpage, World Health Organization. 2013;1.

# **MODULE OBJECTIVES AND STRATEGIES**

By the end of the Reproductive 2 module students should be able to:

## ANAESTHESIA

	OBJECTIVES	LEARNING STRATEGY
Ana	algesia & Anesthesia in Obstetrics	
•	Describe analgesic techniques used in labor and cesarean delivery	
•	Describe different anesthetic options used in labor and cesarean delivery including the risks and benefits of general, spinal, & epidural anesthesia, pudendal nerve block, and narcotics	Interactive Lecture

# ANATOMY

	OBJECTIVES	LEARNING STRATEGY
Pelv	vis and Pelvimetry	
•	Describe the structure of the male and female genital tract	Interactive
•	Describe the gross anatomy of the female pelvic organs including the ovaries, uterine tubes, the uterus, broad ligament, and the vagina	Lecture/ Tutorial
•	Identify the different types of pelvis	

# **COMMUNITY MEDICINE**

OBJECTIVES	LEARNING STRATEGY
1. Introduction to reproductive health	
Describe Reproductive Health	
Explain the phases of Reproductive Health	Interactive
Identify the components of reproductive health	Lecture
Discuss Reproductive Health in Islam	

2. Maternal care	
Explain the determinants of maternal care	
Discuss high-risk pregnancies	
Describe Preventive measures for maternal mortality	Interactive
Explain three delay model	Lecture
Discuss safe motherhood initiative	
3. Infant Care & weaning	
Describe infant care	
Discuss the role of mother & of breastfeeding in infant care	Interactive
Identification of "at risk" infant	Lecture
Describe infant mortality	
Define weaning and its importance for infant development	
List appropriate first foods for infants and their nutritional value.	
Describe the preventive measures for infant mortality	
4. Integrated Management of Neonatal & Childhood Illness (IMNCI)-I	
Describe the components of IMNCI	
Discuss the role of community and family practice in IMNCI	
Explain the process of assessment of danger signs in IMNCI	
• Describe the IMNCI approach to assessing, classifying, and managing pneumonia	
5. Integrated Management of Neonatal & Childhood Illness (IMNCI)-II	
• Explain the integration of case management in managing diarrheal diseases.	
Classify dehydration using IMNCI criteria.	
• Discuss the role of community and family practice in IMNCI to prevent diarrheal diseases.	
<ul> <li>Identify and classify other diseases managed under IMNCI.</li> </ul>	
6. Family Planning	
Describe family planning	
Explain methods used in family planning	
• List the common reasons for the unmet need for Family Planning (UMNFP)	
7. Reproductive Tract Infections	
Classify reproductive tract infections	
Discuss the epidemiology of Reproductive Tract Infections	
Discuss the syndromic management of reproductive tract infections	

Describe the preventive measures for HIV/AIDs	
Describe HIV/AIDS control Programme in Pakistan	]
8. Fertility determinants	
Differentiate between fertility and fecund ability	
Describe determinants of fertility	
Calculate the measures of fertility	
9. Diet in Pregnancy and Lactation management	
• Describe the nutritional requirements during pregnancy and lactation and their role in maternal and child health.	
• Identify key macronutrients and micronutrients essential for healthy fetal growth and milk production.	Interactive lecture
• Recognize the consequences of inadequate or excessive nutrition during pregnancy and lactation.	
Explain the importance of breastfeeding	
10. Baby Friendly Hospital Initiative (BFHI):	
Describe BFHI and its purpose in promoting breastfeeding.	]
Explain the Ten Steps to Successful Breastfeeding proposed by WHO/UNICEF	]
Identify Common breastfeeding challenges	
11. IMNCI	Tutorial
• Perform a systematic assessment to identify danger signs and symptoms based on IMNCI guidelines.	
<ul> <li>Accurately classify conditions based on observed signs and symptoms.</li> </ul>	
<ul> <li>Formulate appropriate treatment strategies for each classification</li> </ul>	
12. Fertility Determinants	Tutorial
• Discuss the concepts of age-specific fertility rates (ASFR), total fertility rate (TFR), and crude birth rate (CBR)	
<ul> <li>Calculate ASFR, TFR, and CBR using the relevant formulas and data provided</li> </ul>	
<ul> <li>Interpret the results of ASFR, TFR, and CBR calculations and mention their significance</li> </ul>	

# **GYNAECOLOGY**

OBJECTIVES	LEARNING STRATEGY
1. Female hormones in the menstrual cycle	
<ul> <li>Define primary &amp; secondary amenorrhea, oligomenorrhea, menorrhagia, dysmenorrhea, dyspareunia, post-menopausal bleeding, post-coital bleeding, premenstrual syndrome</li> </ul>	
<ul> <li>Explain the etiology, symptoms, and signs, of primary and secondary amenorrhea, and oligomenorrhea</li> </ul>	
<ul> <li>Differentiate among the three types of amenorrhea</li> </ul>	
Define primary & secondary dysmenorrhea	latere etime
<ul> <li>Interpret the investigation findings of clinical abnormalities of the menstrual cycle</li> </ul>	Interactive Lecture
2. Bleeding PV and early pregnancy complications {Miscarriages, Ectopic pregnancy, and Gestational Trophoblastic diseases/ neoplasia (molar) GTD/GTN}	
<ul> <li>List the most common pregnancy complications</li> </ul>	
Define ectopic pregnancy	
<ul> <li>Discuss the differential diagnosis of acute abdomen in women</li> </ul>	
<ul> <li>Diagnose ectopic pregnancy, based on provided data (history, examination findings, investigation reports)</li> </ul>	
Define abortion according to WHO criteria	
• Differentiate among the various types of abortions based on data provided (history, examination findings, investigation reports)	
<ul> <li>Describe the treatment options for each type of abortion</li> </ul>	
<ul> <li>Discuss the definition, etiology, risk factors, and classification of GTN</li> </ul>	
<ul> <li>Discuss Gestational Trophoblastic diseases/ neoplasia (molar) GTD/GTN</li> </ul>	
3. Physiology of normal puerperium, Puerperal disorder & Postnatal care	
Define puerperium	
<ul> <li>Describe signs and symptoms, and management of normal and abnormal puerperium, including puerperal pyrexia and puerperal sepsis</li> </ul>	Interactive
<ul> <li>Recognize the risk factors for depression (postpartum blues) and the role of psychosocial support</li> </ul>	Lecture

• Discuss the issues in postnatal care effectively with patient

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4. Lactation management and breast care	
• Discuss the benefits & complications of breastfeeding for the baby, mother, family, and country	
Discuss the role of counseling by health care providers about breastfeeding at term	1
Explain the significance of self-breast examination and clinical examination	1
5. Poly-Cystic Ovary Syndrome (PCOS)	
Interpret the hormone profile report for PCOS	1
• Discuss the etiology, pathophysiology, diagnosis, and management options for PCOS	1
6. Vulvovaginal infections (vaginal discharge)	
• List the causes of vaginal discharge(candida, bacterial vaginosis, trichomoniasis)	1
• Differentiate between a normal vaginal discharge (Leucorrhea) and pathological vaginal discharge based on clinical history	
• Describe symptoms, signs, investigations, and treatment options for vaginal discharge due to Candidiasis, Bacterial vaginosis, Trichomoniasis, Gonorrhea, and Chlamydia trachomatis infection	
Discuss steps of prevention and recurrence of vaginal discharge	
7. Pelvic Inflammatory Disease (PID, STIs)	
Define Pelvic Inflammatory disease (PID)	
Diagnose PID based on symptoms, signs, and investigation findings	
Discuss the differential diagnosis of PID and its possible complications	Interactive
Discuss the management options for acute and chronic PID	Lecture
8. Sexually transmitted diseases	
Classify STD	
• Differentiate among the various types based on their etiology, modes of infections, clinical features, investigations and treatment option for each.	
9. Human Immunodeficiency Virus (HIV)	
Differentiate between HIV and AIDS	
• Discuss the etiology, modes of infection, clinical features, investigations and principles of management of patients infected with HIV	
10. UTI in Gynaecology (Cystitis, Lower Urinary Tract Symptoms)	
Based on the data provided, diagnose UTI in pregnant women	
Discuss the principles underlying their effective investigation and treatment	
11. Infertility	Interactive Lecture/
Define infertility and sub-fertility	Tutorial

# • Discuss the causes and relevant investigations of an-ovulation in women

•	Interpret the reports of Semen analysis in males and fertility-related hormone profiles in female	
12.	Benign valval disorders	
• inclu	Identify the clinical features and risk factors of various vulvovaginal conditions uding Warts, Bartholin cysts, and Abscess.	
13.	Benign tumors of the genital tract I (Ovarian cysts, Polyps, Fibroid)	Interactive
•	Describe the benign tumors of the female genital tract	Lecture
•	Differentiate among the various types of ovarian cysts, polyps & fibroids based on their etiology, symptoms, signs, and pathophysiology	
•	Justify the selection of investigations for ovarian cysts, polyps & fibroid uterus	
14.	Gynecological Investigations	
•	Describe the of the role of Hysteroscopy & Hystrosalpangiogram	
•	Interpret the lab investigation X-Rays & laparoscopic views of different disorders	
•	Identify the hard and soft copy views of X-rays and contrast X-rays	
•	Identify the laparoscopic views of an adnexal mass, ruptured and un-ruptured ectopic pregnancy, PID and TO mass, endometriosis, and pelvic adhesions	Tutorial
•	Identify the hysteroscopy views (endometrial polyp, normal uterine cavity, sub mucus fibroid, septate uterus) including Colposcopy views of the cervix	Tutonai
•	Describe the role of ultrasound in the evaluation & diagnosis of different disorders in gynae	
•	Discuss Point of care ultrasound (POCOS) in gynae	
•	Discuss Doppler ultrasound in gynae	
15.	Public health issues related to reproductive health	
• mor	Discuss the maternal health situation in Pakistan (Total fertility, maternal tality, perinatal mortality, contraceptive prevalence rate)	
•	Discuss the important causes of maternal mortality and morbidity	
•	Describe maternal health services	
•	Describe the levels of obstetric care including obstetric first aid, basic EmNOC, comprehensive EmNOC	Interactive Lecture
•	List the basic steps of counseling in reproductive health, with emphasis on family planning	
•	Discuss the role of contraception in population dynamics	
16.	Family planning (contraceptive) methods	
•	Describe the commonly used methods of family planning, and their indications	

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# **OBSTETRICS**

	OBJECTIVES	LEARNING STRATEGY
1. Antenatal care & Assessment		
•	Perform per abdominal examination	
•	Explain the importance of routine prenatal laboratory investigations, prenatal diagnostic options (IPS, Quad screen, amniocentesis, CVS), and fetal ultrasound assessment	
•	Explain the process/schedule of antenatal care and investigations (GDM screening, Rh prophylaxis, GBS screening, term cervical assessment) and its importance in ensuring maternal health and normal fetal growth and well-being	CBL/Tutori al/ skills session
2.	Antenatal investigation	
•	Explain the importance and process of antenatal care and investigations	
•	Interpret Rh prophylaxis, GBS screening, and term cervical assessment to ensure maternal health and normal fetal growth and well being	
3.	Normal Labor	
•	Define labor	
•	Explain the stages of normal labor	
•	Describe the basic mechanisms of labor evaluation	
•	Describe the seven cardinal movements of labor	
• de	Explain the technique of delivery, traction, and handling of the infant after livery	
•	Define Partogram and CTG	
•	List the uses of partograph and CTG in the management of normal labor	Interactive
•	Interpret the result of the Who Labor Guide	Lecture
4.	Anemia in pregnancy	
•	Discuss the causes, signs and symptoms, investigations & management.	
•	Discuss fetal and maternal complications of anemia in pregnancy.	
5.	Preterm Labor	
•	Define preterm labor	
•	Explain indications, contraindications and complications of induction of labor	
•	Discuss the advantages, and disadvantages of augmentation of labor	
•	Discuss the monitoring and management of induced and augmented labor	

- Differentiate between Threatened preterm labor, Preterm pre-labor rupture of membranes, and preterm labor
- Discuss the clinical features, diagnosis, and management of preterm labor and preterm pre-labor rupture of membranes
- Appraise the principles of diagnosis and management of Threatened preterm labor, Preterm pre-labor rupture of membranes, and Preterm labor
- List the causes of IUD

# 6. Abnormal Labor-I (Fetal mal-presentation and malposition)

- Define mal-presentation & malposition
- List the different types of mal-presentation & malposition
- Describe the causes of Breech, Transverse lie, and other mal-presentations and mal-positions
- Describe the management options for mal-presentation and abnormal labor.
- 7. Abnormal Labor-II (Obstructed Labor)
- Define obstructed labor
- List the main causes of obstructed labor
- Describe how each cause contributes to the development of this complication
- Describe the clinical signs of obstructed labor and the common maternal and fetal complications that result from uterine obstruction
- Describe the management of obstructed labor
- 8. Induction of Labor
- Define induction and augmentation of labor
- Explain indications, contraindications, advantages, and disadvantages of induction and augmentation of labor
- Discuss the monitoring and management of induced and augmented labor
- Discuss the management of abnormal partograph and CTG.

# 9. Analgesia & Anesthesia in Obstetrics

- Describe analgesic techniques used in labour and cesarean delivery
- Describe different anaesthetic options used in labor and cesarean delivery including the risks and benefits of general, spinal, & epidural anaesthesia, pudendal nerve block, and narcotics

# 10. Role of ultrasound in Obstetrics

- Describe the role of Ultrasound, point of care ultrasound (POCUS), and Doppler ultrasound in Obstetrics including antepartum fetal surveillance in normal and high-risk pregnancy & evaluation of fetal growth restriction
- 11. Safe Motherhood

Define Pillars of safe motherhood	
Discuss components of safe motherhood	
Discuss WHO strategies for safe motherhood	
12. Respectful maternity care	
Discuss the seven principles of RMC	
13. Instruments related to obstetrics	
Identify the following instruments:	
i. Instruments of C/section	
ii. Outlet forceps	Tutorial
iii. Vacuum	
iv. Episiotomy scissors	
v. Fetoscope	
Discuss their uses, indications and contraindications, and complications	
14. Skills In Obstetrics	
1. Obstetrics history taking	
2. Obstetric examination (Perform on patient/manikin)	
3. P/A & antenatal investigations	
4. Antenatal card	
5. Discharge card	
6. Interpretation of normal and abnormal CTG & WHO Labor guide	

# PATHOLOGY

	OBJECTIVES		
1.	Congenital anomalies of the female and male genital tract; Epididymo-orchitis		
•	Describe the various congenital anomalies of the female genital tract with their important salient features	Interactive	
•	Discuss developmental abnormalities and related features of the hypospadias, Epispadias, phimosis & Cryptorchidism.	Lecture/ Tutorial	
•	Discuss the microorganism, pathogenesis, and morphology of specific and nonspecific types of epididymal-orchitis		

#### 2. Infectious agents causing genital ulcer disease

- List the important microorganism causing genital ulcer disease
- Discuss in detail the pathophysiology, clinical manifestation, laboratory diagnosis, treatment, and prevention of:
  - i. HSV 2 infection
  - ii. HPV infection

#### 3. Infectious agents causing vaginitis

- List the important microorganisms causing vaginitis
- Briefly discuss candida infections
- Discuss in detail the important properties, pathophysiology, clinical manifestation, diagnosis, treatment, and prevention of:
  - i. Trichomonas vaginalis infection
  - ii. Gardnerella vaginalis infection

#### 4. Pelvic Inflammatory Disease (PID)

- Define Pelvic Inflammatory Disease
- List the important microorganisms causing cervicitis and PID
- Discuss the risk factors, pathophysiology, morphology and clinical presentation, and complications of PID
- Discuss the role of Staphylococcus in causing toxic shock syndrome
- Discuss in detail the important properties, pathophysiology, clinical manifestation, laboratory diagnosis, treatment, and prevention of Neisseria gonorrhea infection

#### 5. Non-neoplastic and neoplastic conditions of the vulva and vagina

- Discuss the morphology, pathogenesis, and clinical presentation of Bartholin cyst, Lichen Sclerosis, Squamous Cell Hyperplasia, Condyloma Acuminatum, Papillary Hidradenoma, Extramammary Paget Disease, Vulvar Intraepithelial Neoplasia, vulvar carcinoma
- Discuss the pathogenesis and morphology of Vaginal Intraepithelial Neoplasia and squamous cell carcinoma, Embryonal rhabdomyosarcoma

#### 6. Non-neoplastic and neoplastic conditions of the cervix

- Discuss the infections of the cervix including acute & chronic cervicitis and Endocervical Polyps
- Discuss the risk factors, pathogenesis, and morphology of cervical intraepithelial lesions and cervical carcinoma
- Elaborate on the role of HPV in cervical cancer,
- Discuss cervical screening methods and pap smear

Interactive

Lecture

#### 7. Endometrial Hyperplasia & Functional Endometrial Disorders

- Define dysfunctional uterine bleeding (DUB)
- Classify abnormal uterine bleeding according to age group and etiology
- Discuss the etiology, pathogenesis, morphology, and clinical features of Abnormal uterine bleeding and the Anovulatory Cycle
- Discuss the etiology, pathogenesis, morphology, and clinical features of acute and chronic Endometritis, Endometriosis and Adenomyosis and Endometrial Polyps
- Classify Endometrial hyperplasia
- Discuss the etiology, pathogenesis, morphology, and clinical features of Endometrial hyperplasia

#### 8. Tumors of Uterine corpus (Benign and Malignant endometrial tumors)

- Classify tumors of the uterus/endometrium
- Discuss the etiology, pathogenesis, morphology, and clinical features of Carcinoma of the Endometrium, Tumors of Endometrial Stroma & mixed Mullerian tumors.
- 9. Non-neoplastic cysts and functional cysts of the ovary and Poly Cystic Ovaries
- Discuss the follicular and luteal cysts, and their morphology
- Define Polycystic Ovaries (PCOs)
- Discuss its etiology, pathogenesis, morphology, and complications
- **10.** Ovarian Tumors I (Tumors of ovary & fallopian tube)
- Classify Ovarian tumors
- Discuss the etiology, pathogenesis, morphology, and clinical features of Serous tumors, Mucinous tumors, Endometriosis tumors, Clear cell tumors, Transitional cell tumors, Adenosarcoma and Malignant mixed Müllerian tumor, and tumors of the fallopian tube

11. Ovarian Tumors – II

• Discuss the etiology, pathogenesis, morphology, and clinical features of Sex CordStromal Tumors, Teratoma, Dysgerminoma, Yolk sac tumors, Mixed germ cell tumors, and Metastatic Cancer

#### **12.** Testicular Tumors

- Classify testicular tumors
- Discuss the etiology, pathogenesis, morphology, and clinical features of various types of testicular cancer
- 13. Early and late disorders of Pregnancy/ Placenta; pre-eclampsia & eclampsia

Interactive

Lecture/

Tutorial

<ul> <li>Discuss the etiology, pathogenesis, morphology, and clinical features of Spontaneous abortion, Ectopic pregnancy, Twin Placenta, Abnormalities of placental insertion, and the disorders of the placenta viz. Placenta Previa, Placental Abruption, Placental Insufficiency, Placental Infarcts, Placenta Accreta, Placental infection, Preeclampsia, and eclampsia</li> </ul>		Interactive Lecture	
14.	14. Gestational Trophoblastic Diseases		
•	Discuss the etiology, pathogenesis, and morphology of hydatiform mole including complete, partial, and invasive mole	Interactive Lecture	
•	xplain the pathogenesis and morphology of choriocarcinoma and placental site phoblastic tumor		
15.	Ion-proliferative & proliferative breast diseases Interaction		
•	Name non-proliferative and proliferative breast lesions	Lecture	
•	<ul> <li>Discuss the etiology, pathogenesis, morphology, and clinical features of all nonproliferative and proliferative breast diseases including mastitis, duct ectasia, fat necrosis, fibrocystic change, proliferative breast lesions with and without atypia</li> </ul>		
16.	Tumors of the breast		
•	Classify Breast tumors		
•	Discuss the etiology, risk factors, pathogenesis, morphology, molecular profile, and clinical features of various types of breast cancer	Interactive Lecture/ Tutorial	
•	Discuss risk factors, pathogenesis, morphology, and clinical features of stromal tumors of the breast (Fibroadenoma, Phylloides)		

# MICROBIOLOGY

OBJECTIVES	LEARNING STRATEGY
Sexually Transmitted Infections (STI)	
Define STI	
List the important microorganisms causing STI	
• Discuss the risk factors, pathophysiology, morphology, and clinical presentation of STIs	
• Discuss in detail the pathophysiology, clinical manifestation, laboratory diagnosis, and treatment of:	Interactive Lecture/ Tutorial
i. CMV	
ii. Chlamydial infection	
iii. Syphilis (Treponema pallidum)	
Briefly discuss the role of HIV as a sexually transmitted infection	

# PHARMACOLOGY

	OBJECTIVES	LEARNING STRATEGY	
1.	Androgens & Anti-androgens		
•	Discuss classification of Androgens & Anti-androgens with their basic & clinical pharmacology of these agents	Interactive Lecture/ Tutorial	
•	Explain the clinical importance of Androgen and Anti-androgens with their basic and clinical pharmacology		
2.	Estrogens & Anti-estrogens		
•	Discuss the classification of estrogens & anti-estrogens		
•	Explain the basic & clinical pharmacology of these agents	Tutovial	
3.	Progestin's & Anti-progestin's	Tutorial	
•	Discuss the classification of Progestin, Anti-progestin	7	
•	Explain the basic & clinical pharmacology of these agents		
4.	Drugs used in pregnancy & lactation	Case-Based	
•	Discuss the contraindicated and safer drugs in pregnancy & lactation	learning	
5.	Contraceptive Drugs		
•	Discuss the classification, kinetics, and dynamics of different hormonal contraceptive drugs	Interactive	
•	Explain the clinical importance of Contraceptive Preparations	Lecture	
6.	Effects of different drugs on the rat uterus	The	
•	Observe the effects of the drug Oxytocin on a rat uterus by using a power lab	Tutorial	

# SURGERY

OBJECTIVES	LEARNING STRATEGY
1.Breast Lump	
Discuss the clinical features and investigations of breast lumps	Interactive
Discuss the differential diagnosis of breast lump	Lecture
Describe the Triple assessment of breast lump	
2. Diseases of the Nipple and Areola	

<ul> <li>Describe the etiology, clinical presentation, investigations and plan of treatment of diseases of Nipple and Areola</li> </ul>	Interactive Lecture
3. Benign breast diseases (Gynecomastia, Bacterial infections, Fibrocystic disease, Cyst, Fibroadenoma, Periductal mastitis, Primary breast cancer)	
<ul> <li>Describe the surgical Anatomy of the breast</li> </ul>	
Discuss the clinical features, investigations and treatment plans of Benign Breast diseases	
Discuss the differential diagnosis	-

# UROLOGY

	OBJECTIVES	LEARNING STRATEGY	
1.	STIs in the male genital tract; including epididymitis, orchitis, prostatitis		
•	Describe the etiology, pathophysiology, symptoms and signs, investigations, and treatment plan for STIs in males (viz. Epididymitis, orchitis, prostatitis gonorrhea, non-specific urethritis, genital herpes, genital warts, syphilis, HIV)		
2.	Male sexual dysfunction		
•	Explain the anatomy and physiology of penile erection	1	
•	Classify the causes of erectile dysfunction		
•	Discuss the various investigations for diagnosis of erectile dysfunction		
•	Discuss the treatment options for Erectile dysfunction including penile implant	Interactive Lecture	
3.	Male Infertility		
•	Define infertility		
•	Describe the stages of spermatogenesis and fertilization		
•	List the causes of male infertility	1	
•	Discuss steps of evaluation of male infertility including history, examination, and investigations		
•	Describe the treatment options for the common conditions causing male infertility		

## **PSYCHIATRY**

OBJECTIVES	LEARNING STRATEGY
1. Management of male & female sexual and reproductive dysfunction	
Describe the psychosocial issues associated with infertility	
Describe ethical issues confronted by patients with infertility	
2. Sexual and domestic violence	
List characteristics of people at increased risk for sexual assault	
Describe the medical and psychosocial management of a victim of sexual a	ssault

# RADIOLOGY

	OBJECTIVES	LEARNING STRATEGY	
Role o	Role of ultrasound		
• Desc	cribe the role of		
i.	Ultrasound for the evaluation and diagnosis of different disorders in Gynae/Obs		
ii.	Point of care ultrasound (POCUS) in Gynae and Obs	Interactive Lecture	
iii.	Doppler ultrasound in Gynae and Obs including antepartum fetal surveillance in the normal and high-risk pregnancy & evaluation of fetal growth restriction		

# **RESEARCH & SKILLS DEVELOPMENT CENTER**

OBJECTIVES	LEARNIN STRATEG
Demonstrate the following procedures:	Skills
Pap smear	session
High vaginal swab	
PV Obs Examination	
PV Gynae Examination	
NVD	
IUCD insertion	
Apart from attending daily scheduled	

#### Apart from attending daily scheduled sessions. students too should engage in self-study to ensure that all the objectives are covered



### **LEARNING RESOURCES**

SUBJECT	RESOURCES	
ANATOMY COMMUNITY MEDICINE	<ul> <li>A. <u>GROSS ANATOMY</u> <ol> <li>K.L. Moore, Clinically Oriented Anatomy</li> <li>EMBRYOLOGY <ol> <li>Keith L. Moore. The Developing Human</li> <li>Langman's Medical Embryology</li> </ol> </li> <li>TEXTBOOKS <ol> <li>Community Medicine by Parikh</li> <li>Community Medicine by M Ilyas</li> <li>Basic Statistics for the Health Sciences by Jan W Kuzma</li> </ol> </li> </ol></li></ul>	
OBSGYN	<b>TEXTBOOK</b> 1. Obstetrics by Ten Teachers, Louise C. Kenny, Jenny E. Myers2. Gynecology by Ten Teachers, Louise Kenny, Helen Bickerstaff3. Hacker & Moore's Essentials of Obstetrics and Gynecology4. Textbook of Gynecology, Rashid Latif Khan5. Fundamentals of Gynaecology, Dr. Arshad Chohan	
PATHOLOGY/MICROBIOLOGY	<ul> <li>TEXTBOOKS         <ol> <li>Robbins &amp; Cotran, Pathologic Basis of Disease,9<sup>th</sup> edition.</li> <li>RapidReviewPathology,4<sup>th</sup> edition by Edward F. Goljan MD</li> </ol> </li> <li>WEBSITES:         <ol> <li>http://library.med.utah.edu/WebPath/webpath.html</li> <li>http://www.pathologyatlas.ro/</li> </ol> </li> </ul>	



#### **ASSESSMENT METHODS:**

- MCQs (Multiple Choice Questions)
- Objective Structured Practical/Clinical Examination (OSPE or OSCE)
- MCQs and unobserved OSPE will be conducted on LNH&MC Moodle platform.
- Observed OSPE will constitute multiple examiner-based stations.

#### **Internal Evaluation**

- Students will be assessed comprehensively through multiple methods.
- 20% marks of internal evaluation will be added to JSMU final exam. That 20% includes mid-module

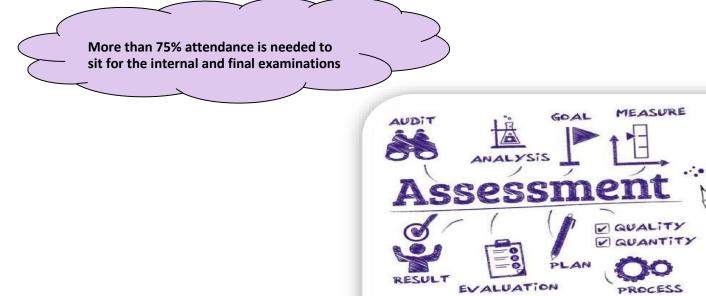
& end of module examination, mid-term & pre-professional examination.

#### **Formative Assessment**

The individual department may hold a quiz or short answer questions to help students assess their learning.

The marks obtained are not included in the internal evaluation

#### For JSMU Examination Policy, please consult JSMU website



#### LNH&MC EXAMINATION RULES & REGULATIONS

- Students must report to the examination hall/venue, 30 minutes before the exam.
- □ The exam will begin sharply at the given time.
- No student will be allowed to enter the examination hall after 15 minutes of the scheduled examination time.
- □ Students must sit according to their roll numbers mentioned on the seats.
- **<u>Cell phones are strictly not allowed in the examination hall.</u>**
- ☐ If any student is found with a cell phone in any mode (silent, switched off, or on) he/she will not be allowed to continue their exam.
- No students will be allowed to sit in the exam without University Admit Card, LNMC
   College ID Card, and Lab Coat
- Indiscipline in the exam hall/venue is not acceptable. Students must not possess any written material or communicate with their fellow students.

# **SCHEDULE:**

WEEKS	4TH YEAR	MONTH	
8 WEEKS	NERVOUS SYSTEM 2 & PSYCHIATRY MODULE	January 13, 2025	
		March 08, 2025	
6 WEEKS	REPRODUCTIVE-2 MODULE	March 10, 2025	
		April 26, 2025	
Mid-Term Examination*			

\*Final dates will be announced later\*

